PROJECT I

ONLINE GAMING TECHNOLOGY

OVERVIEW

Create a three player version of the networked version of the game of Tag with a novel twist.

Submission: You need to use github and have each build committed before each deadline.

LEARNING OUTCOMES

- P2P with Authoritative Host
- State based updates with PacketStream
- Packet rate modification
- Dead reckoning
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BASIC GAMEPLAY [DUE: 1PM, WED NOV 26TH]

- Build on what you have:
    - Each player is represented by a coloured circle (if a player is red he/she should be red on all players' screens).
    - If a player hits the side of the screen you can have either wrap around or bounce
    - When they collide, the game entities freeze and the survival time is displayed ("Red lasted 6.52 seconds")
    - State based updates with PacketStream;
    - Message Types
- Make it so that one of the players is the authoritative host (decides about collisions, what colours people are etc., sets up the game – so players only need to know the host's address)
- Come up with a novel twist for the game (some mechanics that make the game more fun e.g. a pickup where the chaser becomes the chased, players can lay mines etc.) and implement it using message types.
- TDD for the project.

PACKET RATE MODIFICATION AND DEAD RECKONING [DUE: 1PM, WED DEC 3RD]

- Add in packet rate modification and dead reckoning so that packet loss can be handled.

EXPERIMENT AND EXTRAS
[DUE: 23.59PM, FRI DEC 12TH]

- Experiment: simulate the game running on the Internet [more details on this will be provided in class]
  NB: The experiment will be run in January.
- As always, to get top marks for the project, you will need to have extras. Ideas
  - handle teams - e.g. red team and blue team that can have more than one player.

DEMOS [1PM WED 17TH DEC]

- Demo your final game (on different machines).